



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,799	01/21/2004	Ross Stenfort	ADAPP267	5404
25920 7590 03/05/2007 MARTINE PENILLA & GENCARELLA, LLP 710 LAKEWAY DRIVE SUITE 200 SUNNYVALE, CA 94085			EXAMINER SIDDQUI, SAQIB JAVAID	
			ART UNIT 2138	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			03/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/762,799

Applicant(s)

STENFORT, ROSS

Examiner

Saqib J. Siddiqui

Art Unit

2138

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 2/27/07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date 2/27/07.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicant's response was received and entered February 27, 2007.

- Claims 1-23 are pending.
- Claims 15 and 18 are amended. Claim 24 is canceled.
- Application is currently pending.

### ***Response to Amendment***

Applicant's arguments and amendments received February 27, 2007 with respect to claims 1-23 have been fully considered but they are moot under new grounds of rejection.

Applicant acknowledges the interview with Attorney of Record Kenneth Wright, and the amendments filed in response to the interview on February 27, 2007. This action is based on the amendments filed on February 27, 2007.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 -23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peeters et al. and further in view of Applicant Admitted Prior Art (AAPA).

As per claim 1:

Peeters et al. explicitly teaches an apparatus for performing a boundary scan test of a device, comprising: a boundary scan cell defined by an asynchronous flip-flop (Figure 6 # 210) having a data input connected to receive a data signal from the device during normal operation of the device (Figure 6 "D"), a data output connected to an input/output pin of the device (Figure 6 "Q"), a system clock input connected to receive a system clock signal from the device during normal operation of the device (Figure 6 "C"), a set input (Figure 6 # 220), and a reset input (figure 6 # 213); and a test controller having a test clock input (Figure 6 "C"), a first test data output (Figure 6 "NS"), and a second test data output (Figure 6 "NR"), the first test data output being connected to the set input of the asynchronous flip-flop, the second test data output being connected to the reset input of the asynchronous flip-flop, the test controller being configured to control the asynchronous flip-flop through the set input and the reset input (column 6, lines 5-40).

Peeters et al. does not explicitly teach a controller circuit. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the signals NS and NR were being communicated to the scan cell from a controller. As evidenced by AAPA (Figure 3 "controller"), all tests involving scan cells require control means and hence it would be obvious to one of ordinary skill in the art to include a controller to communicate signals and control the scan test process in Peeters et al. using a controller. Further, evidence for this contention can be found in column 3, lines 25-30, where Peeters et al. mentions that the scan flop cell are generally integrated into IC designs in the form of scan chains.

As per claim 2:

Peeters et al./AAPA teaches the apparatus as rejected in claim 1 above, wherein the test controller is configured to communicate with the asynchronous flip-flop without communicating through intervening multiplexing circuitry (Figure 6, Assuming that a controller is providing signals NS and NR there is no intervening multiplexer in that path).

As per claim 3:

Peeters et al./AAPA teaches the apparatus as rejected in claim 1 above, wherein the test controller is configured to communicate directly with the asynchronous flip-flop (Figure 6).

As per claims 4-8:

Peeters et al./AAPA teaches the apparatus as rejected in claim 1 above, wherein the claimed limitations are inherent to the working of an SR flip-flop.

As per claim 9:

Peeters et al./AAPA teaches the apparatus as rejected in claim 1 above, wherein the test controller is a test access port (TAP) controller compliant with an IEEE 1149.1 standard (Figure 3).

As per claim 10:

Peeters et al./AAPA teaches the apparatus as rejected in claim 9 above, wherein the first test data output is a test data in (TD1) pin of the TAP controller (Figure 3).

As per claim 11:

Peeters et al./AAPA teaches the apparatus as rejected in claim 9 above, wherein the second test data output is a test reset (TRST) pin of the TAP controller (Figure 3).

As per claims 12-14:

Claims 12-14 are directed to the apparatus of the apparatus of claims 1-11.

Peeters et al./AAPA teaches as stated above, the apparatus as set forth in claims 1-11. Therefore, Peeters et al./AAPA also teaches as stated above, the apparatus as set forth in claims 12-14.

As per claims 15-17:

Claims 15-17 are directed to the method of integrating the apparatus of claims 1-11. Peeters et al./AAPA teaches as stated above, the apparatus as set forth in claims 1-11. Therefore, Peeters et al./AAPA also teaches as stated above, the method of integrating the apparatus as set forth in claims 15-17.

As per claims 18-23:

Claims 18-23 are directed to the method of operating the apparatus of claims 1-11. Peeters et al./AAPA teaches as stated above, the apparatus as set forth in claims 1-11. Therefore, Peeters et al./AAPA also teaches as stated above, the method of operating the apparatus as set forth in claims 18-23.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saqib J. Siddiqui whose telephone number is (571) 272-6553. The examiner can normally be reached on 8:00 to 4:30.

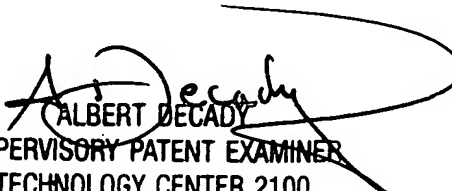
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

**Examiner's Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Saqib Siddiqui  
Art Unit 2138  
03/01/2007

  
ALBERT DECADY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100